UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/585,933	06/02/2000	Brig Barnum Elliott	00-4013	6270

			EXAMINER
32127	7590	04/02/2004	SONG, HOSUK

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ART UNIT	PAPER NUMBER
2135	

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _02 June 2000_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1,2,4-12 and 14-17_ is/are rejected.

7)☒ Claim(s) _3,13,18_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

  1.☐ Certified copies of the priority documents have been received.

  2.☐ Certified copies of the priority documents have been received in Application No. _____.

  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
  Paper No(s)/Mail Date _4_.

4)☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

1.   Claims 1-2,4-12,14-17,19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Tatebayashi(US 6,359,986) in view of Fox et al.(US 6,560,581).

Claim 1: Tatebayashi discloses generating a first collection and a second collection of

encryption bits in a key supply device in (fig.2,#113 and col.8,lines 16-31). Tatabayashi

discloses storing first collection of encryption bits in a memory of storage module and

transporting key storage module to a data production device in (fig.1,#21 and col.9,lines 9-11).

Tatebayashi discloses connecting key storage module to the production device and supplying

first collection of encryption bits from module to production device in (col.8,lines 65-

67;col.9,lines 1-11 and fig.10,#21,205,40,200). Tatebayashi discloses encrypting data produces

by data production device using first collection of encryption bits in (col.9,lines 36-40).

Tatebayashi does not specifically discloses deleting first collection of encryption bits from

memory of key storage module. Fox's patent discloses key set generator where once key is

generated it is discarded from the memory after its use in (col.17,lines 62-67;col.18,lines 9-12).

It would have been obvious to person of ordinary skill in the art at the time invention was made

to employ a key set generator where once key is generated it is discarded from the memory

after its use as taught in Fox with a key set generator disclosed in Tatebayashi so that key bits

no longer needed can be safely destroyed in memory without danger of unidentified copies of

the key remaining in computer memory.

Claim 2: Tatebayashi discloses transporting key storage module to key supply device

and connecting key storage module to key supply device in (fig.10,#21,205,203-204).

Tatebayashi discloses supplying second collection of encryption bits from key supply device to

key storage module in (col.9,lines 9-11col.7,lines 65-67;col.8,lines 1-15). Tatebayashi discloses

storing second collection of encryption bits in the memory of the key storage module in (fig.10).

Claims 4,5: neither Tatebayashi nor Fox specifically discloses supplying power from data

production device to key storage module after key storage module is connected with data

production device. It is inherent in system of Tatebayashi and Fox's system to include supply

power once it is connected to the device in order to carry out specific calculation.

Claim 6: Tatebayashi discloses storing data in a memory of production device in (fig.1).

Claim 7: Tatebayashi discloses data production device comprises a communication

device in (fig.10).

Claim 8: Tatebayashi discloses transmitting encrypted data from communicating device

to another communication device in (fig.1).

Claims 9-12: Tatebayashi does not specifically disclose retrieving,determining and

signaling whether stored encryption bits below a predetermined amount. Examiner takes Official

notice that this is well known in the art. One of ordinary skill in the art would have been

motivated to use the scheme in order to set desired level of encryption security of the data so

that user can select desired level of security for each data.

Claims 14-17,19-20: Tatebayashi discloses a key storage module configured to store

encryption bits in a memory of key storage module and communication device configured to

retrieve a quantity of encryption bits from memory of key storage module in (fig.1 and col.9,lines

2-11). Tatebayashi discloses encrypted data is transmitted from communication device using quantity of encryption bits in (fig.1 and col.8,lines 38-44). Tatebayashi does not specifically discloses retrieval depletion process of encryption bits stored in the key storage module. Fox's patent discloses this process in (col.17,lines 62-67;col.18,lines 9-12). It would have been obvious to person of ordinary skill in the art at the time invention was made to employ a depletion process as taught in Fox with a key set generator disclosed in Tatebayashi so that key bits no longer needed can be safely destroyed in memory without danger of unidentified copies of the key remaining in computer memory. Further, depletion process allows for efficient memory management.

Allowable Subject Matter

2.   Claims 3,13,18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
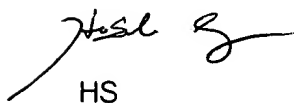
Conclusion

3.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hosuk Song whose telephone number is 703-305-0042. The examiner can normally be reached on Tue-Fri from 6:00 am to 4:00 pm.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 703-305-4393. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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